



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) **EP 1 040 808 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
08.08.2001 Bulletin 2001/32

(51) Int Cl.7: **A61F 13/26**

(43) Date of publication A2:  
04.10.2000 Bulletin 2000/40

(21) Application number: 00302683.8

(22) Date of filing: 30.03.2000

(84) Designated Contracting States:  
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE**  
Designated Extension States:  
**AL LT LV MK RO SI**

(72) Inventor: **Suga, Ayami, c/o Technical Center  
Mitoyo-gun, Kagawa-ken 769-1602 (JP)**

(74) Representative: **Parry, Christopher Stephen  
Saunders & Dolleymore,  
9 Rickmansworth Road  
Watford, Herts. WD18 0JU (GB)**

(30) Priority: 31.03.1999 JP 9266499

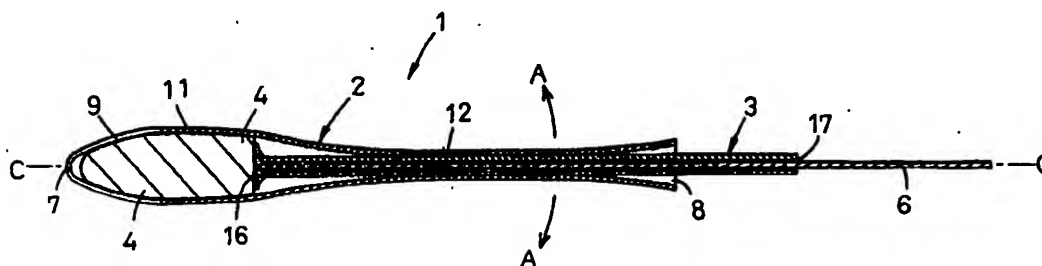
(71) Applicant: **UNI-CHARM CORPORATION  
Kawanoe-shi Ehime-ken (JP)**

(54) **Applicator for sanitary tampon**

(57) An applicator 1 for sanitary tampon includes an outer cylindrical tube 2 formed with the maximum outer diameter region 11. The outer cylindrical tube 2 has its outer diameter gradually increasing rearwardly from its

front end until the maximum outer diameter region 11 is reached and then gradually decreasing rearwardly. The maximum outer diameter region 11 extends within 1/2 of a full length of the outer tube 2 as measured from its front end.

**FIG.2**



EP 1 040 808 A3



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number

EP 00 30 2683

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 524 581 A (OTTO POPPER) 9 August 1940 (1940-08-09)	1,2	A61F13/26
Y	* page 1, line 65 - page 2, line 44 *	5,6	
X	US 5 800 377 A (ALBRIGHT MARK D ET AL) 1 September 1998 (1998-09-01)	1,2,6	
Y	* column 2, line 57 - column 3, line 13; figures 5,6 *	5	
X	EP 0 418 791 A (KAO CORP) 27 March 1991 (1991-03-27)	1,4	
Y	* column 6, line 18 - column 7, line 2; figures 5,6 *	5,6	
	GB 550 638 A (JOHNSON & JOHNSON GT BRITAIN L) 18 January 1943 (1943-01-18)		
	* page 2, line 22 - page 2, line 26; figure 2 *		
The present search report has been drawn up for all claims			
Place of search <b>MUNICH</b>		Date of completion of the search <b>7 June 2001</b>	Examiner <b>Boccignone, M</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 (03.02.99) (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 2683

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-06-2001

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 524581	A	09-08-1940	NONE	
US 5800377	A	01-09-1998	US 5558631 A	24-09-1996
			US 5346468 A	13-09-1994
			AT 160282 T	15-12-1997
			AT 193198 T	15-06-2000
			AU 673812 B	28-11-1996
			AU 3014992 A	15-07-1993
			BR 9300115 A	20-07-1993
			CA 2087130 A	14-07-1993
			DE 69223231 D	02-01-1998
			DE 69223231 T	28-05-1998
			DE 69231104 D	29-06-2000
			DE 69231104 T	01-02-2001
			DK 551758 T	27-07-1998
			DK 791347 T	14-08-2000
			EP 0551758 A	21-07-1993
			EP 0791347 A	27-08-1997
			ES 2111622 T	16-03-1998
			ES 2146048 T	16-07-2000
			FI 930116 A	14-07-1993
			FI 980088 A	16-01-1998
			HK 1005123 A	28-07-2000
			HK 1014857 A	15-09-2000
			IL 104194 A	14-08-1997
			JP 6197927 A	19-07-1994
			NO 301864 B	22-12-1997
			NZ 245671 A	26-09-1995
			ZA 9300101 A	10-08-1993
EP 0418791	A	27-03-1991	JP 3106365 A	02-05-1991
			CA 2024473 A	21-03-1991
			DE 69007388 D	21-04-1994
			DE 69007388 T	23-06-1994
			ES 2050903 T	01-06-1994
			PH 27068 A	01-02-1993
			US 5080659 A	14-01-1992
GB 550638	A	18-01-1943	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82